

AMENDMENTS TO THE CLAIMS

1. (Previously Presented) Single-phase, liquid compositions (solutions) comprising

- at least one organic semiconductor which comprises at least one high-molecular-weight component,
- and at least one organic solvent A,
- and at least one organic solvent B,
- and at least one organic solvent C,
- wherein the boiling points of all solvents A, B and C are greater than 80°C and the following applies to the boiling points (b.p.) of solvents A, B and C:  $b.p.(A) < b.p.(C) < b.p.(B)$ , and/or to the respective partial vapour pressures (p) at the temperature of the coating methods of solvents A, B and C:  $p(A) > p(C) > p(B)$  and

wherein the organic semiconductor is soluble in the pure solvent A or in the pure solvent B in a concentration of at least 5 g/l at room temperature and the solubility of the organic semiconductor in the pure solvent C at room temperature is less than 0.3 g/l.

2. (Cancelled)

3. (Cancelled)

4. (Previously Presented) Solutions according to claim 1, wherein the organic semiconductor is employed as pure component.

5. (Previously Presented) Solutions according to claim 1, wherein the organic semiconductor is employed as a mixture of two or more components.

6. (Currently Amended) Solutions according to Claim 5, wherein the solution additionally comprises one or more organic non-conductors ~~are used~~ as matrix.

7. (Previously Presented) Solutions according to claim 1, wherein the high-molecular-weight component has a molecular weight  $M_w$  of greater than 50,000 g/mol.

8. (Previously Presented) Solutions according to claim 1, wherein the high molecular weight organic semiconductor are selected from the group consisting of substituted poly-p-

arylenevinylenes (PAVs), polyfluorenes (PFs), polyspirobifluorenes (PSFs), poly-para-phenylenes (PPPs) or poly-para-biphenylenes, polydihydrophenanthrenes (PDHPs), cis- and trans-polyindenofluorenes (PIFs), polythiophenes (PTs), polypyridines (PPys), copolymers which contain structural units from two or more of the above-mentioned classes, generally conjugated polymers, polyvinylcarbazoles (PVKs), polytriarylamine and soluble polymers containing phosphorescent units, which are soluble in organic solvents and mixtures thereof.

9. (Currently Amended) Solutions according to claim 6, ~~wherein the non-conductors are matrix polymer as~~ which further comprises a semiconductor which is selected from the group consisting of low-molecular-weight, oligomeric, dendritic or polymeric organic and organometallic semiconductors and mixtures thereof.

10. (Previously Presented) Solutions according to claim 1, wherein the boiling point of all three solvents A, B and C is greater than 120°C.

11. (Previously Presented) Solutions according to claim 1, wherein the boiling point of all three solvents A, B and C is less than 300°C.

12. (Previously Presented) Solutions according to claim 1, wherein the difference between the boiling points of solvent A and solvent C is greater than 10 K.

13. (Previously Presented) Solutions according to claim 1, wherein the difference between the boiling points of solvent C and solvent B is greater than 10 K.

14. (Previously Presented) Solutions according to claim 1, wherein the proportion of solvent A is 10 to 80% by vol., the proportion of solvent B is 0.5 to 40% by vol. and the proportion of solvent C is 10 to 90% by vol.

15. (Previously Presented) Solutions according to Claim 14, wherein the proportion of solvent A is 25 to 60% by vol., the proportion of solvent B is 2 to 20% by vol. and the proportion of solvent C is 30 to 70% by vol.

16. (Previously Presented) Solutions according to claim 1, wherein the solution comprises additional solvents.

17. (Previously Presented) Solutions according to claim 1, wherein solvents A and B used are selected from the group consisting of mono- or polysubstituted aromatic solvents, formic acid derivatives, N-alkylpyrrolidones or high-boiling ethers.

18. (Original) Solutions according to Claim 17, wherein solvents A and B are one or more solvents selected from the group consisting of 3-fluorobenzotrifluoride, benzotrifluoride, dioxane, trifluoromethoxybenzene, 4-fluorobenzotrifluoride, 3-fluoropyridine, toluene, 2-fluorotoluene, 2-fluorobenzotrifluoride, 3-fluorotoluene, pyridine, 4-fluorotoluene, 2,5-difluorotoluene, 1-chloro-2,4-difluorobenzene, 2-fluoropyridine, 3-chlorofluorobenzene, 1-chloro-2,5-difluorobenzene, 4-chlorofluorobenzene, chlorobenzene, 2-chlorofluorobenzene, p-xylene, m-xylene, o-xylene, 2,6-lutidine, 2-fluoro-m-xylene, 3-fluoro-o-xylene, 2-chlorobenzotrifluoride, dimethylformamide, 2-chloro-6-fluorotoluene, 2-fluoroanisole, anisole, 2,3-dimethylpyrazine, bromobenzene, 4-fluoroanisole, 3-fluoroanisole, 3-trifluoromethylanisole, 2-methylanisole, phenetol, benzodioxole, 4-methylanisole, 3-methylanisole, 4-fluoro-3-methylanisole, 1,2-dichlorobenzene, 2-fluorobenzonitrile, 4-fluoroveratrol, 2,6-dimethylanisole, aniline, 3-fluorobenzonitrile, 2,5-dimethylanisole, 2,4-dimethylanisole, benzonitrile, 3,5-dimethylanisole, N,N-dimethylaniline, 1-fluoro-3,5-dimethoxybenzene, phenyl acetate, N-methylaniline, methyl benzoate, N-methylpyrrolidone, 3,4-dimethylanisole, acetophenone, o-tolunitrile, 4-tert-butylanisole, veratrol, ethyl benzoate, N,N-diethylaniline, propyl benzoate, 1-methylnaphthalene, 3,5-dimethoxytoluene, butyl benzoate, 2-methylbiphenyl, dimethylnaphthalene, 2-phenylpyridine and 2,2'-bitolyl.

19. (Previously Presented) Solutions according to claim 1, wherein the solvent C is selected from the group consisting of straight-chain, branched or cyclic alkanes, terpenes, (cyclo)aliphatic alcohols, ketones, carboxylic acid esters or mono- or polysubstituted aromatic solvents which have substituents having 4 or more C atoms, alkoxy substituents having 4 or more C atoms, alcohols having more than 4 C atoms, glycols and ethers.

20. (Previously Presented) Solutions according to Claim 19, wherein solvent C is selected from the group consisting of methylcyclohexane, 3-pentanol, 1,4-dimethylcyclohexane, ethylene glycol monomethyl ether, 1,2-dimethylcyclohexane, octane, 2-hexanol, 1-pentanol, 1,2,4-trimethylcyclohexane, 4-heptanone, 3-heptanone, 2-heptanone, nonane, cyclohexanone, 3-heptanol, 1-hexanol, 2-heptanol, diglyme, butyl butyrate, tert-butylbenzene, decane, 1-heptanol, 2-octanol, butylcyclohexane, 2-ethyl-1-hexanol, decalin, propylene glycol, dimethyl sulfoxide, 3,3,5-trimethylcyclohexanone, glycol, 3,7-dimethyl-1-octanol, 3,7-dimethyl-3-octanol, dimethyl succinate, tert-butyl-m-xylene, benzyl alcohol, DBE, dodecane, diethyl succinate, triglyme, bicyclohexyl, dimethyl adipate, 1-decanol and 2-pyrrolidone.

21. (Previously Presented) A process for the production of layers of the organic semiconductors on a substrate which comprises utilizing the solution according to claim 1.
22. (Currently Amended) Process for the production of organic semiconductor layers on a substrate, ~~characterised in that a~~ wherein the solution according to claim 1, is processed by means of a printing method.
23. (Currently Amended) Process according to Claim 22, ~~characterised in that~~ wherein the printing method is an ink-jet printing (IJP) method.
24. - 26 (Cancelled)
27. (Previously Presented) Solutions according to claim 1, wherein solvent C is selected from the group consisting of straight chain, branched or cyclic alkanes having seven or more C atoms, terpenes, (cyclo)aliphatic alcohols, ketones, carboxylic acid esters, mono- or polysubstituted aromatic solvents which have substituents selected from the group consisting of alkyl substituents having 4 or more C atoms, alkoxy substituents having 4 or more C atoms, alcohols having more than 4 C atoms, glycols and ethers.
28. (Previously Presented) Solutions according to claim 1, wherein the boiling points of all solvents A, B and C are greater than 100<sup>0</sup>C.
29. (Previously Presented) Solutions according to claim 1, wherein the boiling points of all solvents A, B and C are greater than 120<sup>0</sup>C.